

that its maximum lobe of radiation will be at 37.5° true. Table IV lists the directional horizontal gain characteristics of the antenna at 5° intervals. Figure 2 shows the proposed antenna elevation. Figure 3 is an azimuth polar plot of the proposed antenna and Figure 4 is a plot of the antenna's vertical gain. No beam tilt or null fill is proposed.

It is proposed to mount the antenna on a 8-5/8" outside diameter steel pole at an elevation of 26 meters AGL and 1,562 meters AMSL.

Appendix A of this Exhibit contains the antenna manufacturer's plan for design, construction and test of the proposed antenna to insure compliance with Section 73.316 of the Commission's Rules.

6.2 Proposed Transmitter:

It is proposed to install a type-approved 10 kW transmitter operating at an output power (TPO) of 7.82 kW (8.93 dBk). The transmitter will be connected to the antenna using 25 meters of 2.22 cm air dielectric coaxial cable, Cablewave Systems, Inc. Model HCC78-50J. The attenuation for this length of line is 0.33 dB, resulting in an overall transmission line efficiency of 92.7%. With this transmitter power output and transmission line loss, the power to the input of the antenna will be 7.25 kW. The proposed operating conditions are tabulated in Table II.

7.0 PROPOSED COVERAGE

7.1 Average Terrain Data:

The average terrain data was obtained using the DMA 3-second data base. Table III lists the terrain data for the proposed site at intervals of every 5 degrees. The site coordinates and site elevation data were obtained from the Tehachapi South topographic 7-1/2 minute quadrangle.

7.2 Prediction of Coverage:

The distances to the 70 dBu and 60 dBu F(50,50) field strength contours and the 80 dBu, 54 dBu and 40 dBu F(50,10) interference field strength contours were determined using a computer algorithm for propagation prediction in the FM broadcast services based upon the algorithm used by the Commission. The distances to the contours have been determined at 10 degree intervals. The distances to the 70 & 60 dBu contours are tabulated in Table V and the distances for the 80, 54 and 40 dBu F(50,10) interference contours are tabulated in Table VI. The 60 dBu F(50,50) primary field strength contour is plotted in Figure 5, which is a portion of a USGS topographic map, California South, scale 1:500,000. The 60 dBu F(50,50) field strength contour and the 40, 54 and 80 dBu F(50,10) interference contours are plotted in Figure 6, which is also a portion of a USGS topographic map, California South, scale 1:500,000.

7.3 Land Area & Population:

The land area enclosed within the proposed 60 dBu field strength contour was determined from Figure 5 by graphical means using a compensating polar planimeter. The population within the 60 dBu field strength contour was taken from the 1980 Census of the United States. A 1986 estimate of the population has also been included.

LAND AREA:	5,211 Square Kilometers
POPULATION:	1980 Census: 33,984
	1986 Update: 41,398

8.0 INTERFERENCE CONTOUR CONSIDERATIONS

There are two co-channel stations, KSPC in Claremont (204A) and KFAC² in Santa Barbara (204B), one first-adjacent channel station, KCSN in Northridge (203A) and one second-adjacent channel station, KPRX in Bakersfield (206B1), that have an effect upon this application. Other than these existing stations, there are no other stations or pending applications within a close enough distance to have an effect on this application.

Determination of the interference contours for each of these four stations was based on antenna elevation data taken from that station's file already on file with the Commission. If the direction from the existing station to

² Call sign recently changed from KSCA to KFAC.

the proposed new channel 204B station was not along one of the standard eight radials, then that radial towards the proposed channel 204B was determined by interpolation, using the existing station's terrain data. The distance to the existing station's 60 dBu F(50,50) field strength contour and the F(50,10) interference contour (40 dBu for the co-channel station, 54 dBu for first-adjacent channel and 80 dBu for two second-adjacent channel stations) was determined using a computer algorithm for propagation prediction in the FM broadcast services based upon the algorithm used by the Commission. The results are tabulated in Tables VI through IX and plotted in Figures 7 and 8, which are portions of USGS topographic maps, California South, scale 1:500,000. Figure 7 shows the proposed station's 60 dBu F(50,50) primary field strength contour and the appropriate F(50,10) interference contours for KSPC, KFAC, KCSN and KPRX. Figure 8 shows the 60 dBu F(50,50) primary contours for existing stations KSPC, KFAC, KCSN and KPRX along with a portion of the appropriate F(50,10) interference contour of the proposed station in the vicinity of the other station's primary contour. It can be seen from Figures 7 and 8 that there is no prohibitive overlap of any primary and interference contour.

9.0 FM BLANKETING CONSIDERATIONS

The distance to the 115 dBu FM blanketing contour was determined to be 2.12 km (1.32 miles). Within this blanketing contour area there is no population.

10.0 INTERMEDIATE FREQUENCY INTERFERENCE CONSIDERATIONS

There are no stations operating on channel 258 (+53 channels removed from 204B) or on channel 259 (+54 channels removed from 204B) that would have an effect upon this application. Table I shows the closest IF channel stations are KKLA in Los Angeles and a new allotment to Bakersfield.

KKLA is separated from the proposed station by 101.7 km while the required separation is only 20 km. Therefore, the proposed station exceeds the minimum requirement to KKLA by 81.7 km.

The new allotment in Bakersfield is separated from the proposed station by 65.5 km while the required separation in this case is only 15 km. Therefore, the proposed station exceeds the minimum requirement to Bakersfield by 50.5 km.

11.0 TV CHANNEL 6 CONSIDERATIONS

Section 73.525(a) of the Rules specifies that an NCE-FM station operating on channel 204 must be at least 235 kilometers from a channel 6 television station or special considerations must be taken into account. The closest channel 6 TV station to the proposed new channel 204B station is KSBY-TV in San Luis Obispo and the distance between the two is 209.3 kilometers. Since KSBY-TV is less than 235 km from the proposed site then further study is necessary to show that no interference will be caused to KSBY-TV by the proposed new NCE-FM station in Mojave.

KSBY-TV operates with an ERP of 100 kW at a HAAT of 542.5 meters. The distance to the Grade B (47 dBu) F(50,50) field strength contour is 124.0 km. From Figure 1, of Section 73.599, the U/D ratio was determined to be 9.3 dB. Therefore, the interference contour for the proposed NCE-FM channel 204B with respect to KSBY-TV is the 56.3 dBu contour. The distance to the 56.3 dBu F(50,10) interference contour was determined to be 13.6 km. There is no intersection of the existing KSBY-TV Grade B contour and the proposed new 204B interference contour.

KSBY-TV Grade B Contour:	124.0 km
New 204B Interference Contour:	<u>13.6 km</u> 137.6 km
Separation Distance:	209.3 km
Safety-Zone:	71.7 km

Based upon the above analysis, the proposed new NCE-FM channel 204B will not cause any interference to existing KSBY-TV in San Luis Obispo.

12.0 ENVIRONMENTAL CONSIDERATIONS

12.1 Human Exposure to RF Radiation:

A study was made to verify that the proposed operation did not exceed the guidelines set out in FCC OST Bulletin No. 65 with respect to RF radiation exposure to humans. The proposed operating conditions of the new station are:

ERP:	Horizontal:	29 kW
	Vertical:	<u>29 kW</u>
	Total:	58 kW or 58,000,000 mW

The proposed antenna is a 4 bay, half-wavelength spaced, antenna where the downward radiation is greatly reduced over a simple half-wave dipole antenna. Based on the antenna's vertical radiation pattern, the relative field gain in a downward direction to a point 20 meters away from the tower base is 0.15. Therefore, the ERP in this downward direction is only 1.305 kW or 1,305,000 mW.

Antenna: AGL = 26 Meters or 2,600 cm

The maximum power density of total radiation in the FM band at a point 20 meters away from the base of the tower is set at 1.0 milliwatts/cm². The equation used to determine the maximum worst-case radiation level is equation (4) in OST Bulletin No. 65:

$$S = \frac{(0.64)ERPI}{(Pi)R^2}$$

Where: ERPI = Total ERP, in mW, x 1.64
 Pi = 3.1415927
 R = Distance from antenna to a point 20 meters from the base of the tower, in cm.

For the proposed channel 204B:

$$S = \frac{(0.64)(1.64)(58,000,000)}{(3.1415927)(3,280.2)^2} = 0.040 \text{ mW/cm}^2$$

The total power density of 0.040 mW/cm² is well below the maximum of 1.0 mW/cm².

The radiation level was also determined using Table I from OST Bulletin No. 65. Using the best case condition for a 4-bay antenna, based upon the use of half-wavelength spacing, shows the minimum antenna height to be 13 meters. The proposed antenna is at 26 meters, twice the required height as determined by the use of Table I.

Therefore, the proposed new channel 204B station exceeds the requirements of OST Bulletin No. 65 and is in full compliance with the Rules.

12.2 Section 1.1305 Consideration:

The proposed antenna support structure is a steel pole that is only 30 meters in height. Therefore, the proposed antenna support structure is not considered a major environmental item as defined by Section 1.1305 of the Rules.

APPLICATION FOR NEW NON-COMMERCIAL EDUCATIONAL FM STATION
TO SERVE MOJAVE, CALIFORNIA

PREPARED FOR:
SANTA MONICA COMMUNITY COLLEGE DISTRICT

13.0 AFFIDAVIT

STATE OF CALIFORNIA)
) ss:
COUNTY OF LOS ANGELES)

JOHN J. DAVIS, does hereby swear that he is a consulting electronics engineer with offices in Sierra Madre, California; that he is a Registered Professional Engineer in the State of California; that his qualifications as an expert in radio engineering are a matter of record with the Federal Communications Commission; that the foregoing engineering statement was prepared by him or under his direction; and that the statements contained therein are true of his own knowledge and belief, and as to those statements, he verily believes them to be true and correct.

By

John J. Davis

January 16, 1991

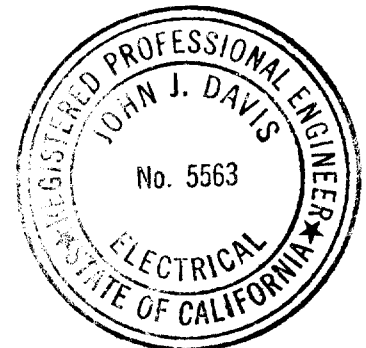


TABLE I

Title: OAK CREEK PASS SITE Latitude: 35-04-02
Channel 204B (88.7 MHz) ERP: 29 kW; EAH: 195 m Longitude: 118-23-03
Database: FCC 11/27/90 Safety zone: 65 km

Call	Auth	Licensee name	Chan	ERP-kW	Latitude	Br-to	Dist.	Req.
City of License	St	FCC File no.	Freq	EAH-m	Longitude	-from	(km)	(km)
KO6MC	CP	COMMUNITY TV OF SOUTHERN	6	0	35-41-15	357.3	68.89	76.67
LAKE ISABELLA	CA		85.0	-96	118-25-11	177.3	-7.78	SHORT
Proposed F(50,10) 56.2 dBu = 70.09 km; KO6MC F(50,50) 47 dBu = 6.582 km								
KSBY-TV LIC	KSBY, INC.		6	100	35-21-37	279.6	209.3	194.1
SAN LUIS OBISPO	CA		85.0	543	120-39-17	98.3	15.18	CLOSE
Proposed F(50,10) 56.2 dBu = 70.09 km; KSBY-TV F(50,50) 47 dBu = 124.0 km								
ALOC		*201B1			34-17-08	207.7	97.95	56.13
Mariposa	CA	88.1			118-52-52	27.5	41.82	CLEAR
Proposed F(50,50) 100 dBu = 5.844 km; ALLOC F(50,50) 60 dBu = 39.08 km								
Proposed F(50,50) 60 dBu = 52.00 km; ALLOC F(50,50) 100 dBu = 4.129 km								
KAXL	CP	Greenacres Educational B	*202A	.36	35-23-02	298.2	75.06	54.95
Green Acres	CA	88.3	41		119-06-46	117.8	20.11	CLEAR
Proposed F(50,10) 80 dBu = 19.95 km; KAXL F(50,50) 60 dBu = 9.157 km								
Proposed F(50,50) 60 dBu = 52.00 km; KAXL F(50,50) 80 dBu = 2.948 km								
KCLU	CP	California Lutheran Univ	*202B1	4.60	34-14-03	206.1	102.9	59.26
Thousand Oaks	CA	88.3	73		118-52-41	25.9	43.65	CLEAR
Proposed to Mexico as Class B 890428-Accepted by Mexico 900221;								
DA: oddball ODD880413ME @ 0 deg								
Proposed F(50,10) 80 dBu = 19.95 km; KCLU F(50,50) 60 dBu = 23.02 km								
Proposed F(50,50) 60 dBu = 52.00 km; KCLU F(50,50) 80 dBu = 7.263 km								
KCN	LIC	State of Ca. - Ca. State	*203A	.05	34-21-13	182.1	79.22	99.65
Northridge	CA	88.5	646		118-24-57	2.1	-20.4	SHORT
Proposed F(50,10) 54 dBu = 76.78 km; KCNS F(50,50) 60 dBu = 22.87 km								
Proposed F(50,50) 60 dBu = 52.00 km; KCNS F(50,10) 54 dBu = 35.18 km								
NEW	APC	Faith Communications Cor	*203A	3	34-32-15	120.7	114.4	90.11
Victorville	CA	88.5	-2		117-18-42	301.3	24.28	CLEAR
Amended 900613;								
Proposed F(50,10) 54 dBu = 76.78 km; NEW F(50,50) 60 dBu = 13.33 km								
Proposed F(50,50) 60 dBu = 52.00 km; NEW F(50,10) 54 dBu = 19.68 km								
KSPC	LIC	Pomona College	*204A	3	34-05-38	150.1	124.4	144.6
Claremont	CA	88.7	-80		117-42-35	330.5	-20.2	SHORT
Proposed F(50,10) 40 dBu = 131.3 km; KSPC F(50,50) 60 dBu = 13.33 km								
Proposed F(50,50) 60 dBu = 52.00 km; KSPC F(50,10) 40 dBu = 53.63 km								
KFAC	LIC	Evergreen Media Corporat	*204B	12	34-27-55	240.8	135.9	180.6
Santa Barbara	CA	88.7	264		119-40-37	60.1	-44.7	SHORT
Proposed F(50,10) 40 dBu = 131.3 km; KFAC F(50,50) 60 dBu = 49.27 km								
Proposed F(50,50) 60 dBu = 52.00 km; KFAC F(50,10) 40 dBu = 120.3 km								

TABLE I

FM Interference study

Title: OAK CREEK PASS SITE						Latitude: 35-04-02		
Channel 204B (88.7 MHz) ERP: 29 kW; EAH: 195 m						Longitude: 118-23-03		
Call	Auth	Licensee name	Chan	ERP-kW	Latitude	Br-to	Dist.	Req.
City of License		St FCC File no.	Freq	EAH-m	Longitude	-from	(km)	(km)
<hr/>								
KPJQ	CP	Community Services Dept.	*204A	3	33-20-36	178.3	191.3	144.6
Avalon		CA DDC-87-48	88.7	-56	118-19-16	358.3	46.68	CLEAR
Proposed F(50,10)		40 dBu = 131.3 km; KPJO		F(50,50)		60 dBu = 13.33 km		
Proposed F(50,50)		60 dBu = 52.00 km; KPJO		F(50,10)		40 dBu = 53.63 km		
ALLOD			*204A		33-20-30	178.4	191.5	155.5
Avalon		CA DDC-20966	88.7		118-19-30	358.4	35.97	CLEAR
EFFECTIVE 2-25-80;								
Proposed F(50,10)		40 dBu = 131.3 km; ALLOD		F(50,50)		60 dBu = 24.22 km		
Proposed F(50,50)		60 dBu = 52.00 km; ALLOD		F(50,10)		40 dBu = 75.91 km		
			*204A		32-31-08	150.0	325.2	
Tecate		BJ	88.7		116-38-52	331.0		
MEXICAN PROPOSAL;								
KXLU	LIC	Loyola Marymount Univers	*205A	2.90	33-58-16	181.4	121.6	90.00
Los Angeles		CA	88.9	3	118-24-56	1.3	31.63	CLEAR
Proposed F(50,10)		54 dBu = 76.78 km; KXLU		F(50,50)		60 dBu = 13.22 km		
Proposed F(50,50)		60 dBu = 52.00 km; KXLU		F(50,10)		54 dBu = 19.50 km		
NEW	APC	Community Educational Br	*205B	1DA	36-17-14	343.3	141.5	128.6
Visalia		CA	88.9	807	118-50-17	163.1	12.87	CLOSE
Cut-off 09/05/90; DA: oddball ODD891117ME @ 0 deg								
Proposed F(50,10)		54 dBu = 76.78 km; NEW		F(50,50)		60 dBu = 51.40 km		
Proposed F(50,50)		60 dBu = 52.00 km; NEW		F(50,10)		54 dBu = 76.59 km		
KPRX	LIC	White Ash Broadcasting,	*206B1	11	35-29-10	315.6	65.33	64.97
Bakersfield		CA	89.1	152	118-53-20	135.3	3.67	CLOSE
Proposed F(50,10)		80 dBu = 19.95 km; KPRX		F(50,50)		60 dBu = 39.29 km		
Proposed F(50,50)		60 dBu = 52.00 km; KPRX		F(50,50)		80 dBu = 12.97 km		
NEW	APC	Santa Monica Community C	*206A	.20	34-06-47	210.4	122.6	57.95
Oxnard		CA	89.1	260	119-03-34	30.0	64.69	CLEAR
Cut-off 06/18/90;								
Proposed F(50,10)		80 dBu = 19.95 km; NEW		F(50,50)		60 dBu = 19.95 km		
Proposed F(50,50)		60 dBu = 52.00 km; NEW		F(50,50)		80 dBu = 5.956 km		
KPCC	LIC	Pasadena Area Community	*207B	.60	34-13-35	162.6	97.73	54.45
Pasadena		CA	89.3	891	118-03-58	342.8	43.28	CLEAR
Proposed F(50,50)		100 dBu = 5.844 km; KPCC		F(50,50)		60 dBu = 48.61 km		
Proposed F(50,50)		60 dBu = 52.00 km; KPCC		F(50,50)		100 dBu = 1.682 km		
NEW	CP	Elgee Broadcasting	257A	3	35-21-07	301.4	61.06	15
Bakersfield		CA BPH-880114NG	99.3	44	118-57-29	121.1	46.06	CLEAR
DDC-90-72;								
NEW	APC	Elgee Broadcasting	257A	6	35-21-07	301.4	61.06	15
Bakersfield		CA BMPH-900809IK	99.3	44	118-57-29	121.1	46.06	CLEAR
DDC-90-72;								

TABLE I

FM Interference study

Title: OAK CREEK PASS SITE Latitude: 35-04-02
Channel 204B (88.7 MHz) ERP: 29 kW; EAH: 195 m Longitude: 118-23-03

Call	Auth Licensee name	Chan ERP-kW	Latitude	Br-to	Dist.	Req.
City of License	St FCC File no.	Freq EAH-m	Longitude	-from	(km)	(km)

ALLOC		257A	35-24-48	306.2	65.50	15
Bakersfield	CA DOC-84-231	99.3	118-58-02	125.8	50.50	CLEAR
# 44; Filing window 12/08-01/14/88 **CLOSED** ;						

KLLA	LIC	Inspiration Media of So.	258B	30	34-09-50	170.2	101.7	20
Los Angeles		CA BLH-851030KG	99.5	204	118-11-46	350.3	81.68	CLEAR
DOC-82-213;								

TABLE II

ENGINEERING SPECIFICATIONS

NEW NON-COMMERCIAL EDUCATIONAL FM STATION
CHANNEL 204B, 88.7 MHz
MOJAVE, CALIFORNIA

a) TRANSMITTER LOCATION

North Latitude: 35° 04' 02"

West Longitude: 118° 23' 03"

Oak Creek Pass

Approximately 19 kilometers west of Mojave
Northeast corner of Section 8, T.11 N., R.14 W.

b) STUDIO AND REMOTE CONTROL LOCATION

To be determined.

c) EQUIPMENT

Transmitter: Type-Approved 10 kW

Transmission Line: Cablewave Systems 25.0 Meters
Type HCC78-50J
2.22 cm Air Dielectric
Coaxial Cable
Attn: 0.33 dB

Tower: Free-standing steel pole 30 Meters

Antenna: Directional 4 Bay
ERI, Model LP-4E-DA-SP
Maximum Power Gain:

Horizontal: 4.0 (6.02 dB)

Vertical: 4.0 (6.02 dB)

Beam Tilt: None

Null Fill: None

TABLE II

d) HEIGHTS

	<u>Meters</u>
Height of Site Above Mean Sea Level (AMSL):	1,536
Height of Pole Above Site (AGL):	30
Overall Height of Pole AMSL:	1,566
Height of Average Terrain AMSL:	1,367
Height of Site Above Average Terrain:	169
Effective Height of Antenna AGL:	26
Effective Height of Antenna AMSL:	1,562
Effective Height of Antenna Above the Average Terrain (HAAT):	<u>195</u>

e) PROPOSED OPERATION

Transmitter Power Output (TPO):	7.82 kW	8.93 dBk
Transmission Line Loss (92.7%):	0.57 kW	0.33 dB
Antenna Input Power:	7.25 kW	8.60 dBk
Antenna Gain, Maximum Horizontal:	4.0	6.02 dB
Effective Radiated Power (ERP):	29.0 kW	14.62 dBk

TABLE III

TERRAIN DATA

TERRAIN AVERAGE FROM NGDC 3-SECOND DATABASE (3 to 16 km)

<u>RADIAL</u> (°)	<u>AVERAGE ELEVATION</u> (Meters)
0	1,349
*5	1,336
*10	1,326
*15	1,315
*20	1,319
*25	1,331
*30	1,321
*35	1,297
*40	1,334
45	1,412
*50	1,501
*55	1,515
*60	1,417
*65	1,272
*70	1,218
*75	1,321
*80	1,278
*85	1,220
90	1,167
*95	1,132
*100	1,106
*105	1,082
*110	1,064
*115	1,064
*120	1,070
*125	1,071
*130	1,074
135	1,078
*140	1,088
*145	1,086
*150	1,092
*155	1,119
*160	1,158
*165	1,205
*170	1,254
*175	1,254
180	1,299

TABLE III

TERRAIN DATA

TERRAIN AVERAGE FROM NGDC 3-SECOND DATABASE (3 to 16 km)

<u>RADIAL</u> (°)	<u>AVERAGE ELEVATION</u> (Meters)
*185	1,349
*190	1,378
*195	1,438
*200	1,468
*205	1,499
*210	1,565
*215	1,569
*220	1,585
225	1,661
*230	1,788
*235	1,927
*240	1,854
*245	1,817
*250	1,893
*255	1,900
*260	1,935
*265	1,843
270	1,738
*275	1,676
*280	1,622
*285	1,540
*290	1,443
*295	1,382
*300	1,336
*305	1,291
*310	1,252
315	1,231
*320	1,233
*325	1,231
*330	1,274
*335	1,341
*340	1,401
*345	1,424
*350	1,408
*355	1,377
AVERAGE :	1,367

TABLE IV

ANTENNA AZIMUTH DATA - HORIZONTAL POLARIZATION

<u>RADIAL</u> (°)	<u>RELATIVE</u> <u>FIELD</u>	<u>RELATIVE</u> <u>POWER GAIN</u> (dB)
0	0.824	-1.681
5	0.866	-1.250
10	0.903	-0.886
15	0.934	-0.593
20	0.959	-0.364
25	0.978	-0.193
30	0.991	-0.079
35	0.999	0.0
40	0.999	0.0
45	0.991	-0.079
50	0.978	-0.193
55	0.959	-0.364
60	0.934	-0.593
65	0.903	-0.886
70	0.866	-1.250
75	0.824	-1.681
80	0.775	-2.214
85	0.721	-2.841
90	0.661	-3.596
95	0.595	-4.510
100	0.532	-5.482
105	0.474	-6.484
110	0.423	-7.473
115	0.377	-8.473
120	0.338	-9.422
125	0.304	-10.343
130	0.276	-11.182
135	0.254	-11.903

TABLE IV

ANTENNA AZIMUTH DATA - HORIZONTAL POLARIZATION

<u>RADIAL</u> (°)	<u>RELATIVE</u> <u>FIELD</u>	<u>RELATIVE</u> <u>POWER GAIN</u> (dB)
140	0.238	-12.468
145	0.227	-12.879
150	0.223	-13.034
155	0.224	-12.995
160	0.227	-12.879
165	0.232	-12.690
170	0.239	-12.432
175	0.247	-12.146
180	0.258	-11.768
185	0.270	-11.373
190	0.281	-11.026
195	0.290	-10.752
200	0.298	-10.516
205	0.303	-10.371
210	0.307	-10.257
215	0.310	-10.173
220	0.310	-10.173
225	0.307	-10.257
230	0.303	-10.371
235	0.298	-10.516
240	0.290	-10.752
245	0.281	-11.026
250	0.270	-11.373
255	0.258	-11.768
260	0.247	-12.146
265	0.239	-12.432
270	0.232	-12.690
275	0.227	-12.879

TABLE IV

ANTENNA AZIMUTH DATA - HORIZONTAL POLARIZATION

<u>RADIAL</u> (°)	<u>RELATIVE</u> <u>FIELD</u>	<u>RELATIVE</u> <u>POWER GAIN</u> (dB)
280	0.224	-12.995
285	0.223	-13.034
290	0.227	-12.879
295	0.238	-12.468
300	0.254	-11.903
305	0.276	-11.182
310	0.304	-10.343
315	0.338	-9.422
320	0.377	-8.473
325	0.423	-7.473
330	0.474	-6.484
335	0.532	-5.482
340	0.595	-4.510
345	0.661	-3.596
350	0.721	-2.841
355	0.775	-2.214

TABLE V
PROPOSED STATION - PRIMARY CONTOURS

NEW 35° 04' 02" - 118° 23' 03"
Mojave, CA
Santa Monica Community College District
Channel 204B, 88.7 MHz
ERP = 29 kW (14.62 dBk)
Antenna Heights: 1,562 Meters AMSL
 195 Meters HAAT
 26 Meters AGL

<u>RADIAL</u> (°)	<u>ANTENNA HEIGHT ABOVE AVERAGE TERRAIN</u> (Meters)	<u>ERP</u> (dBk)	<u>DISTANCE TO CONTOURS</u>	
			<u>F(50,50)</u> <u>70 DBU</u> (km)	<u>F(50,50)</u> <u>60 DBU</u> (km)
0	213	12.94	30.9	50.0
*10	236	13.73	34.1	53.5
*20	243	14.26	35.5	55.1
*30	241	14.54	35.8	55.6
*40	228	14.62	35.1	54.7
45	150	14.54	28.5	47.1
*50	61	14.43	18.7	32.1
*60	145	14.03	27.4	45.4
*70	344	13.37	39.6	60.3
*80	284	12.41	34.6	54.1
90	395	11.02	37.7	58.2
*100	456	9.14	36.7	57.5
*110	498	7.15	34.7	55.5
*120	492	5.20	30.8	50.9
*130	488	3.44	27.7	46.8
135	484	2.72	26.5	45.0
*140	474	2.15	25.4	43.4
*150	470	1.59	24.5	42.1
*160	404	1.74	22.9	39.4
*170	308	2.19	20.7	35.6

TABLE V
PROPOSED STATION - PRIMARY CONTOURS

<u>RADIAL</u> (°)	<u>ANTENNA HEIGHT ABOVE AVERAGE TERRAIN</u> (Meters)	<u>ERP</u> (dBk)	<u>DISTANCE TO CONTOURS</u>	
			<u>F(50,50)</u> <u>70 DBU</u> (km)	<u>F(50,50)</u> <u>60 DBU</u> (km)
180	263	2.85	19.9	34.2
*190	184	3.59	17.4	29.8
*200	94	4.10	12.6	22.7
*210	-3	4.36	7.2	12.9
*220	-23	4.45	7.3	13.0
225	-99	4.36	7.2	12.9
*230	-226	4.25	7.2	12.8
*240	-292	3.87	7.0	12.6
*250	-331	3.25	6.8	12.2
*260	-373	2.47	6.5	11.7
270	-176	1.93	6.3	11.3
*280	-60	1.62	6.2	11.1
*290	119	1.74	12.3	22.4
*300	226	2.72	18.3	31.5
*310	310	4.28	23.3	39.4
315	331	5.20	25.3	42.3
*320	329	6.15	26.5	44.0
*330	288	8.14	27.7	45.4
*340	161	10.11	23.5	39.7
*350	154	11.78	25.1	42.1
AVERAGE	195	14.62		52.0

* - Not included in average

TABLE VI
PROPOSED STATION - INTERFERENCE CONTOURS

NEW 35° 04' 02" - 118° 23' 03"
Mojave, CA
Santa Monica Community College District
Channel 204B, 88.7 MHz
ERP = 29 kW (14.62 dBk)
Antenna Heights: 1,562 Meters AMSL
 195 Meters HAAT
 26 Meters AGL

RADIAL (°)	ANTENNA HEIGHT ABOVE AVERAGE TERRAIN (Meters)	ERP (dBk)	DISTANCE TO INTERFERENCE CONTOURS		
			F(50,10) 40 DBU (km)	F(50,10) 54 DBU (km)	F(50,10) 80 DBU (km)
0	213	12.94	124.8	73.8	18.8
*10	236	13.73	131.6	78.8	20.9
*20	243	14.26	135.1	81.2	21.9
*30	241	14.54	136.3	81.8	22.2
*40	228	14.62	135.2	80.7	21.7
45	150	14.54	125.1	70.3	16.9
*50	61	14.43	109.0	52.5	10.5
*60	145	14.03	121.6	68.0	15.9
*70	344	13.37	141.9	88.2	24.6
*80	284	12.41	130.3	79.4	21.2
90	395	11.02	137.6	86.0	23.2
*100	456	9.14	136.9	86.1	22.5
*110	498	7.15	133.7	83.1	20.7
*120	492	5.20	125.5	76.8	18.1
*130	488	3.44	118.1	71.1	15.9
135	484	2.72	114.9	68.6	14.7
*140	474	2.15	111.6	66.1	14.1
*150	470	1.59	109.1	64.2	13.6
*160	404	1.74	102.5	59.8	12.9
*170	308	2.19	93.6	53.3	11.6

TABLE VI
PROPOSED STATION - INTERFERENCE CONTOURS

RADIAL (°)	ANTENNA HEIGHT ABOVE AVERAGE TERRAIN (Meters)	ERP (dBk)	DISTANCE TO INTERFERENCE CONTOURS		
			F(50,10)	F(50,10)	F(50,10)
			40 DBU (km)	54 DBU (km)	80 DBU (km)
180	263	2.85	91.3	51.3	11.2
*190	184	3.59	84.7	44.9	9.8
*200	94	4.10	72.4	33.9	7.1
*210	-3	4.36	51.4	19.0	4.0
*220	-23	4.45	51.8	19.1	4.1
225	-99	4.36	51.4	19.0	4.0
*230	-226	4.25	50.9	18.9	4.0
*240	-292	3.87	49.1	18.4	3.9
*250	-331	3.25	46.4	17.7	3.8
*260	-373	2.47	43.4	16.7	3.6
270	-176	1.93	41.5	16.1	3.5
*280	-60	1.62	40.5	15.7	3.5
*290	119	1.74	69.1	33.3	7.0
*300	226	2.72	87.0	47.6	10.3
*310	310	4.28	100.5	58.9	13.1
315	331	5.20	105.9	63.3	14.3
*320	329	6.15	108.9	65.7	15.0
*330	288	8.14	111.5	67.4	16.1
*340	161	10.11	104.7	58.9	13.1
*350	154	11.78	111.3	62.6	14.1

AVERAGE 195 14.62

* - Not included in average

TABLE VIIA
CO-CHANNEL STATIONS

KSPC 34° 05' 38" - 117° 42' 35"
 Claremont, CA
 Pomona College
 FCC File No. BLED-1190
 Channel 204A, 88.7 MHz
 ERP = 3.0 kW (4.77 dBk)
 Antenna Heights: 396 Meters AMSL
 -80 Meters HAAT

Distance to Oak Creek Pass site = 124.4 km @ 330.5°

<u>RADIAL</u> (°)	<u>ANTENNA HEIGHT ABOVE AVERAGE TERRAIN</u> (Meters)	<u>DISTANCE TO CONTOURS</u>	
		<u>F(50,50)</u> <u>60 DBU</u> (km)	<u>F(50,10)</u> <u>40 DBU</u> (km)
0	-621	13.2	53.3
45	-343	13.2	53.3
90	35	14.1	56.6
135	132	27.3	81.3
180	166	30.3	86.2
225	120	26.3	79.4
270	128	27.0	80.7
315	-236	13.2	53.3
AVERAGE	-80	13.2	
330.5	-369	13.2	53.3
PROPOSED 204B 60 dBu = 42.1 km		PROPOSED 204B 40 dBu = 109.1 km	
EXISTING KSPC 40 dBu = <u>53.3 km</u>		EXISTING KSPC 60 dBu = <u>13.2 km</u>	
		95.4 km	
		122.3 km	
SEPARATION DISTANCE: 124.4 km		124.4 km	
SAFETY-ZONE: 29.0 km		2.1 km	

TABLE VIIB
CO-CHANNEL STATIONS

KFAC 34° 27' 55" - 119° 40' 37"
 Santa Barbara, CA
 University of Southern California
 FCC File No. BLED-850325KP
 Channel 204B, 88.7 MHz
 ERP = 12 kW (10.79 dBk)
 Antenna Heights: 664 Meters AMSL
 264 Meters HAAT
 15 Meters AGL

Distance to Oak Creek Pass site = 135.9 km @ 60.1°

RADIAL (°)	ANTENNA HEIGHT ABOVE AVERAGE TERRAIN (Meters)	DISTANCE TO CONTOURS	
		F(50,50) 60 DBU (km)	F(50,10) 40 DBU (km)
0	-20	19.0	84.2
45	-49	19.0	84.2
90	-213	19.0	84.2
135	615	70.2	156.2
180	659	71.9	158.5
225	593	69.3	155.2
270	507	64.6	149.0
315	21	19.0	84.2
AVERAGE	264	49.3	
60.1	-104	19.0	84.2
PROPOSED 204B 60 dBu = 12.6 km		PROPOSED 204B 40 dBu = 49.1 km	
EXISTING KFAC 40 dBu = <u>84.2 km</u>		EXISTING KFAC 60 dBu = <u>19.0 km</u>	
		96.8 km	68.1 km
SEPARATION DISTANCE:		135.9 km	135.9 km
SAFETY-ZONE:		39.1 km	67.8 km